



Economics

Avery Shenfeld
(416) 594-7356
avery.shenfeld@cibc.ca

Benjamin Tal
(416) 956-3698
benjamin.tal@cibc.ca

Andrew Grantham
(416) 956-3219
andrew.grantham@cibc.ca

Royce Mendes
(416) 594-7354
royce.mendes@cibc.ca

Nick Exarhos
(416) 956-6527
nick.exarhos@cibc.ca

<http://economics.cibccm.com>

The Math of the Aftermath

by Avery Shenfeld

With one rate hike in the books, and the Bank of Canada signaling that it won't wait too long before a follow-up move, attention will turn to its aftermath. Once rates are at 1%, and no longer at "emergency" levels, then what?

The answer depends on where we're ultimately headed: the neutral rate of interest that will keep Canada at full employment in the absence of fresh shocks. Too bad that, despite the best efforts of econometricians, the data don't let us pin down where that lies.

Canada was included in a sophisticated 2016 San Francisco Fed study (Holston, Laubach, and Williams) that estimated neutral rates for four countries. But the final estimate, a Canadian real rate of 1.3%, carried a standard error of 2.2%. So even using a wide one-standard-deviation confidence band, all we know is that the real neutral rate should be somewhere between -1% and 3½%, implying a nominal rate of 1% to 5.5%. We could have guessed just as much.

That said, empirical studies do reach two more meaningful conclusions. First, real neutral rates have been falling everywhere, so this cycle will likely be aiming at a lower rate than those of the past. And more importantly, neutral real rates are correlated across countries; as the US goes, so goes this nation, to a substantial degree. Bank of Canada research, (Mendes, 2014), found that each 100-bp decline in US neutral rates passes through to more than half of that in Canada.

What we've seen in recent weeks is one reason why: interest differentials have a visible impact on the currency. In turn, the Canadian dollar can help steer both inflation and growth. It's no accident that the Bank of Canada waited until the Fed had taken US rates above Canadian yields before delivering its own rate hike. Even then, the loonie has rallied, despite weaker oil prices. To contain a further C\$ appreciation, and allow indebted households time to adjust, look for the Bank of Canada to keep its target rate close to the Fed's.

So it comes down to where US real neutral rates are. There's no certainty there, but, to paraphrase a famous US judge, we'll "know it when we see it" by watching what it takes to decelerate growth to potential and level off the jobless rate.

On that score, there's evidence that neutral Fed rates might be surprisingly low. US growth is running only marginally above potential with real short rates still in negative territory. If, as econometric work has suggested, the US hits neutral a couple of years from now at a nominal rate of 2½%, Canada's nominal short rates might be on a slow crawl to not much above 2%, given that a positive spread would cause the loonie to soar.

By moving early, with inflation still below target, the Bank of Canada has plenty of time to avoid a rush to judgment. The math of the aftermath is that beyond 1%, rates will only be creeping ahead.

MARKET CALL

- A month ago, we were still giving Governor Poloz's team a bit more time to come around to our view that labour markets were tightening, but their quick turn opened the door to a second hike this year. We narrowly favour October over September, as skipping a decision date helps signal to markets that hikes will be gradual, and thereby reduces any further appreciation for the C\$. Our near-term inflation outlook is also slightly under BoC expectations (see pages 3-5). Holding rate hikes next year to 50 bps would allow the BoC to monitor how indebted households are coping.
- While Canada moved up its rate hike cycle, the Fed is signaling the opposite. With inflation still tame, we swapped the timing for Fed actions, shifting the start of the balance sheet unwind a few months earlier (to September), and delaying the next hike to December. But that didn't alter our 2018 calls, and therefore leaves us as "baby bears" on Treasuries as inflation makes a comeback.
- We've strengthened our C\$ projections given a more hawkish Bank of Canada, but only modestly. We trimmed our oil call a few dollars for 2018, and also see the risks that if the loonie runs too far, it could push back the timetable for rate hikes. The Bank of Canada is counting on export momentum as housing lows.

INTEREST & FOREIGN EXCHANGE RATES

END OF PERIOD:	2017			2018			
	12-Jul	Sep	Dec	Mar	Jun	Sep	Dec
CDA Overnight target rate	0.75	0.75	1.00	1.00	1.25	1.25	1.50
98-Day Treasury Bills	0.76	0.85	1.05	0.95	1.20	1.20	1.40
2-Year Gov't Bond	1.15	1.20	1.25	1.25	1.45	1.65	1.75
10-Year Gov't Bond	1.85	1.90	1.95	2.00	2.10	2.15	2.25
30-Year Gov't Bond	2.21	2.30	2.50	2.60	2.65	2.75	2.80
U.S. Federal Funds Rate	1.125	1.125	1.375	1.375	1.625	1.875	1.875
91-Day Treasury Bills	1.04	1.05	1.25	1.40	1.65	1.70	1.70
2-Year Gov't Note	1.35	1.45	1.60	1.55	1.85	2.10	2.15
10-Year Gov't Note	2.32	2.35	2.55	2.50	2.65	2.75	2.85
30-Year Gov't Bond	2.90	2.95	3.20	3.20	3.30	3.35	3.40
Canada - US T-Bill Spread	-0.29	-0.20	-0.20	-0.45	-0.45	-0.50	-0.30
Canada - US 10-Year Bond Spread	-0.48	-0.45	-0.60	-0.50	-0.55	-0.60	-0.60
Canada Yield Curve (30-Year — 2-Year)	1.06	1.10	1.25	1.35	1.20	1.10	1.05
US Yield Curve (30-Year — 2-Year)	1.54	1.50	1.60	1.65	1.45	1.25	1.25
EXCHANGE RATES							
CADUSD	0.79	0.78	0.77	0.75	0.76	0.77	0.76
USDCAD	1.27	1.28	1.30	1.33	1.32	1.30	1.31
USDJPY	113	114	113	112	110	108	106
EURUSD	1.14	1.14	1.16	1.17	1.18	1.19	1.20
GBPUSD	1.29	1.27	1.29	1.31	1.33	1.34	1.37
AUDUSD	0.77	0.75	0.77	0.78	0.79	0.80	0.81
USDCHF	0.96	0.96	0.95	0.94	0.94	0.93	0.93
USDBRL	3.22	3.16	3.19	3.17	3.18	3.17	3.18
USDMXN	17.8	19.8	19.8	19.5	19.5	18.7	17.7

Canadian Inflation: What's Gone Wrong?

Avery Shenfeld and Nick Exarhos

Let's concede that Canada's recent inflation data haven't been in line with our forecast, or others. But as they say, you learn from your mistakes, and understanding why inflation has drifted even lower, amidst robust growth, is key to determining how long these soft figures might persist.

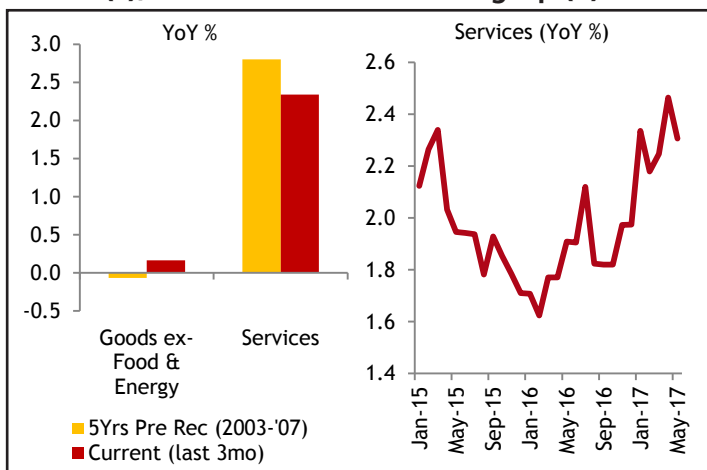
An unexpected dive in oil fed through to gasoline, but the softness has extended to various core measures. Those include CPI (excluding food and energy), and also the three "new and improved" core inflation readings that are designed to get at the underlying common trend.

Global Disinflation: Really Not That New

Soft global inflation is part of the story, but it's not as if we just invented China or Amazon. These global forces are a permanent dampener on goods prices, as opposed to more domestically determined services. Goods inflation has therefore been more muted than services inflation for decades, and there's nothing that unusual about Canadian goods inflation (excluding food and energy) to be trending at close to 0% (Chart 1).

The deterioration in goods price inflation as we've moved past the impact of earlier C\$ weakness has been part of the last few months' CPI story. The latest gains in the Canadian dollar, if sustained, could extend that run a bit, so we have moderated our goods inflation targets ahead.

Chart 1
Last Cycle Saw Similarly Weak Non-Commodity Goods (L); Services Inflation Heating Up (R)



Source: Statistics Canada, CIBC

The counterweight will be an improving global economy that might help firm up US\$ prices for internationally traded goods.

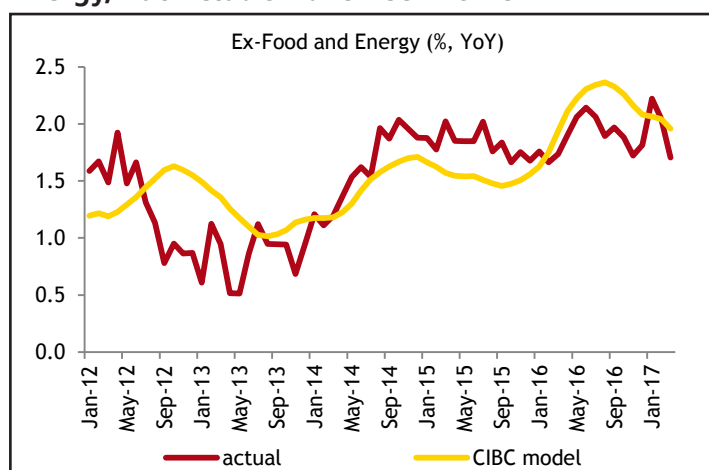
But relative to pre-recession norms, it's actually services inflation that has been lighter in this recovery. While it has heated up, the gap between current services inflation and the last cycle's trend is largely why overall inflation is also sitting below Bank of Canada targets.

Where are You Mr. Phillips?

The broader issue is that Phillips curve models, which relate inflation to economic slack, aren't quite working. Our own version, which allows Canadian inflation to be a function of the lagged output gap and changes in the Canadian dollar, has generated a projection for CPI (excluding food and energy) that tracked well above the actual data in recent months (Chart 2). The model isn't of course perfect in the historical data, but the recent divergence is at the wider end of its typical miss.

It's much the same in a Bank of Canada model aimed at showing the utility of its newest core benchmarks. In particular, the BoC has cited the degree to which the "common component" core tracks lagged levels of the output gap. But the output gap has clearly been narrowing, and even given the lags, that should be leaning against further disinflation.

Chart 2
CIBC Model Pointed to Softening in Ex-Food and Energy, But Actuals Have Been Lower



Source: Statistics Canada, CIBC

But the BoC equation does include one variable that might be providing part of the answer—unit labour costs. These have decelerated smartly in recent quarters. While that still leaves the BoC equation tracking too high versus the actual data for the common core measure (Chart 3), both the actual and fitted curves show a deceleration.

The softness in labour costs isn't a sign of a breakdown in the Phillips curve relationship between labour market slack and compensation. Total compensation accelerated as unemployment dropped (Chart 4, left). But that's been more than offset by surging productivity (Chart 4, right), allowing unit labour costs to ease to a slim 0.4% year-on-year growth rate through the first quarter of this year.

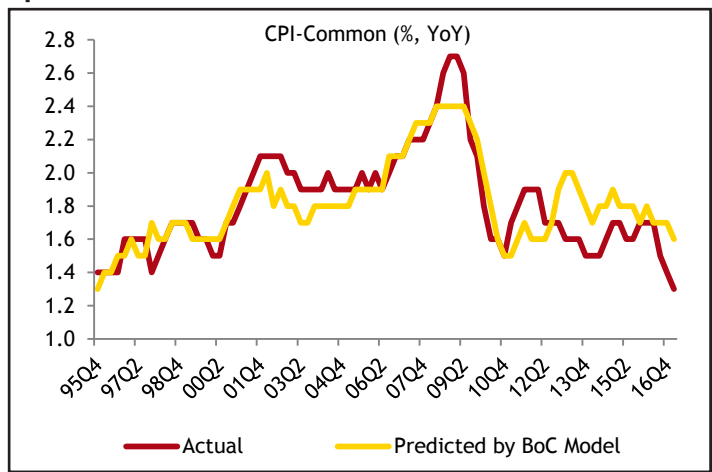
Looking ahead, the compensation component should see further pressure, as it captures the lagged impacts of the recent tightening in Canadian labour markets on wage settlements. In addition to that invisible hand of markets, higher minimum wages in Ontario, BC and Alberta will be kicking into labour costs in the next two years.

Productivity, in contrast, might simply have been rebounding after an earlier period of unusual sluggishness. If recent quarters are not the start of a productivity boom, and output per hour reverts back to its medium-term trend, compensation gains will translate into a meaningful recovery in unit labour costs.

Where is the Housing Boom?

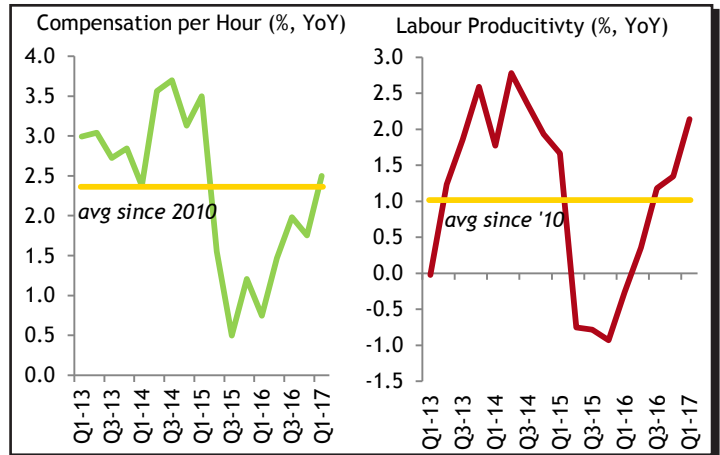
In addition to the Phillips curve impacts not being visible yet, a regional house price boom has been nowhere to be found in the Canadian CPI. That reflects both CPI

Chart 3
Common Component Underperforming BoC Specified Model



Source: Statistics Canada, CIBC

Chart 4
Compensation Firming...Sustainably (L), While Productivity Pops (R)



Source: Statistics Canada, CIBC

methodology, and the offset of low mortgage rates.

Since most households don't move in any given period, cost of living measures would overweight house price changes if they assumed that everyone buys a house at this year's market price. Some countries therefore use the cost of renting a house, others allow the CPI basket to include the purchase of a fraction of a house each year.

In Canada, the approach is to separately measure two costs: replacing aging parts of the house, which is estimated by tracking the price of newly built houses excluding land, and the mortgage interest costs (MIC) associated with financing a typical house. The latter is assessed by assuming that mortgage sizes relate to the purchase prices prevailing in each of the prior 25 years with a greater weighting to recent years. Only maturing or new mortgages are bumped to the current yield in any given month, in a mix of one, three and five-year terms.

For the most part, then, rising housing land prices have only been gradually reflected in the CPI as they impacted average mortgage principals. Moreover, the measure of house prices being tracked comes from a survey of builders, and seems to have lagged behind where secondary market prices have trended. Statistics Canada has advised us that a change in methodology for housing inflation is forthcoming, and we're guessing that a measure for house prices could be part of that change. But the key to why house prices have been MIA is that mortgages have been generally rolling over at lower rates in the last several years. That's about to change.

Using some of the key sub-components from Statistics Canada, we created an index that tracks the mortgage interest series in the CPI. We were then able to roll it forward, under our base-case forecast for Canadian interest rates, which has the Bank of Canada raising short rates another 25 bps later this year, and a further quarter-point every six months to mid-2019. Mortgage rates would not rise quite as much, given some 1 to 5-year curve flattening as we get deeper into the rate hike cycle. The growth rate in mortgage principals is assumed to slow as house prices decelerate.

Even with those cushions, the CPI for mortgage interest will accelerate from roughly zero to well over 3% by mid-2019 (Chart 5). That looks dramatic, but given the modest weight of that one component, its add to the total CPI would be no more than 0.2%. In sum, a giant leap for MIC, but a small step for total inflation.

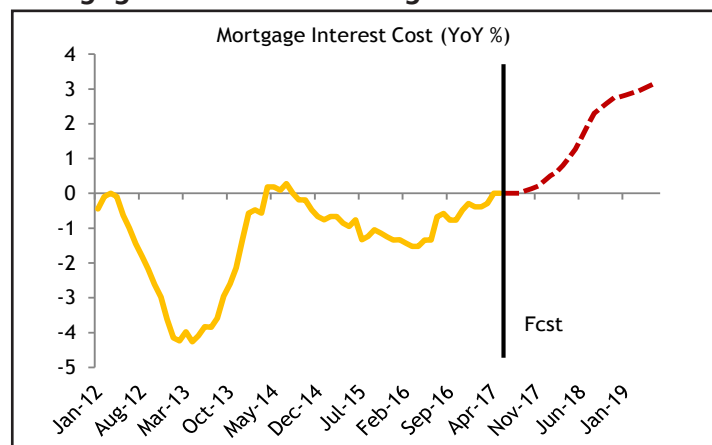
Putting it All Together

In the very near term, Canada's CPI still has some important headwinds. The recent gains in the Canadian dollar could dampen import prices and cushion food in particular, wage rates are soft for the time being, power prices in Ontario are due for another cut, and gasoline looks to be cheap this summer.

But medium-term adjustments look to push CPI inflation towards the Bank of Canada's target. A likely reversion in productivity to trend would, along with minimum wage gains, put pressure on unit labour costs, housing will add a couple of ticks, and we see oil higher in 2018 given that current pricing doesn't support positive cash flow for the marginal supplies needed from the US. We look for prices to revert to the \$55/bbl range by mid-2018 as a result.

Chart 5

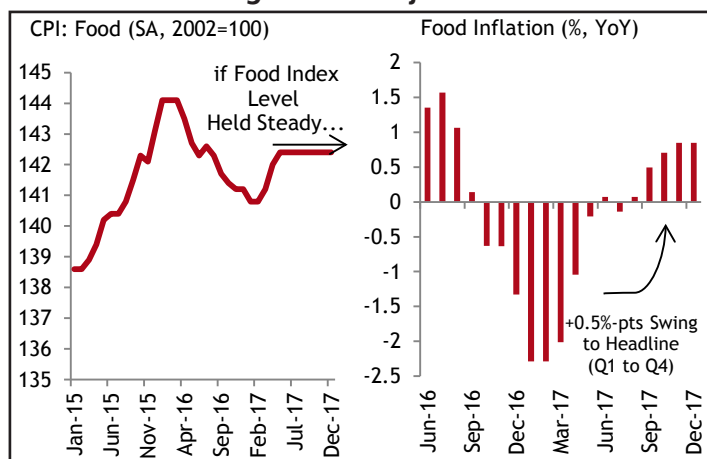
Mortgage Interest: From Drag to Lift



Source: Statistics Canada, CIBC

Chart 6

Food Will No Longer Be a Major CPI Headwind



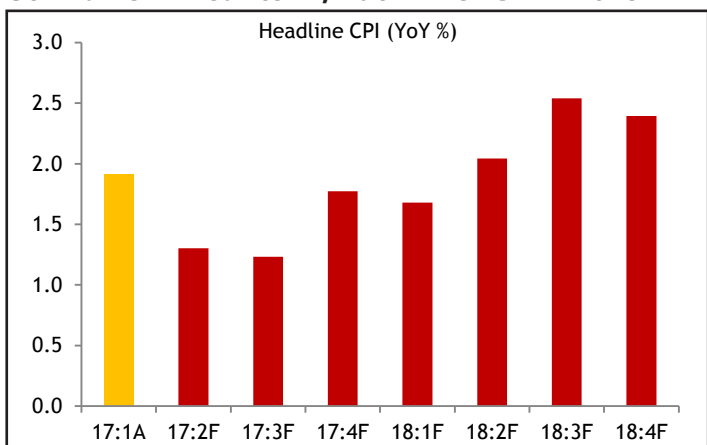
Source: Statistics Canada, CIBC

As we move past the C\$ climb, trends in food should also support a headier CPI rate. A persistent drag over the past several months, grain prices appear to be firming. Even if the food basket only levels off in seasonally adjusted terms, built-in gains in recent months would see food's 12-month pace accelerate from -2% early this year to over 0.5% (Chart 6).

By pushing the C\$ stronger, the Bank of Canada's rate hike may have delayed achieving its 2% inflation target. But not for long. For each of the issues we looked at, the impacts are in the range of a decimal place or two on the CPI. But when added together, they're material enough to push CPI inflation above the 2% target by next spring (Chart 7). That won't be alarming to the Bank of Canada, given how long inflation has run below target. But it might add a dose of pressure to long-term rates and breakeven inflation assumptions in the real return bond market, given how dovish current market expectations are for Canada's CPI.

Chart 7

Still Tame in Near-term, But Firmer CPI in 2018



Source: Statistics Canada, CIBC

Food For Thought: Do Slowing US Restaurant Sales Have Implications For Canada?

Andrew Grantham

Through late 2014 and into 2015, an upturn in US restaurant sales was viewed as a signpost of confidence that would support broader consumption. Yet since then households appear to have lost their appetite for eating out, with restaurant sales having slowed even more than aggregate consumer spending. That's come in contrast to still-strong growth here in Canada (Chart 1).

However, the deceleration in eating out isn't likely a precursor for even weaker spending in other areas, with industry-specific factors such as higher labour costs playing a role in the slowing trend. As such, it shouldn't be a worry for consumer goods exporters in Canada, although there are lessons to be learnt for Canadian food service firms and related equities that will face similar pressure regarding labour costs in the years ahead.

Already Full?

One factor holding back restaurant sales stateside could be the fact that households are already spending significant resources on it. The proportion of all food spending that's put towards dining out has been on an uptrend for some time, and is at almost 50% currently.

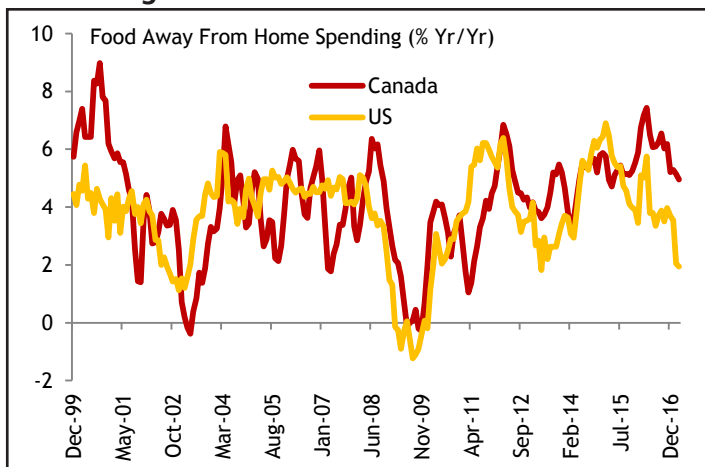
Although a recent survey by Nielson showed that there are plenty of countries ahead of the US when it comes to the proportion of meals eaten away from home, most of those countries are in South America or Asia where labour costs are very low and cheap street food is common.

And recently, restaurant spending hasn't just been rising as a proportion of total food expenditure, but as a proportion of incomes as well. In the previous two decades, that proportion had been fairly constant at just over 4%. It is now nearer to 5%, and is around levels that have proved to be the peaks historically (Chart 2).

Feeling the Cost Pressure

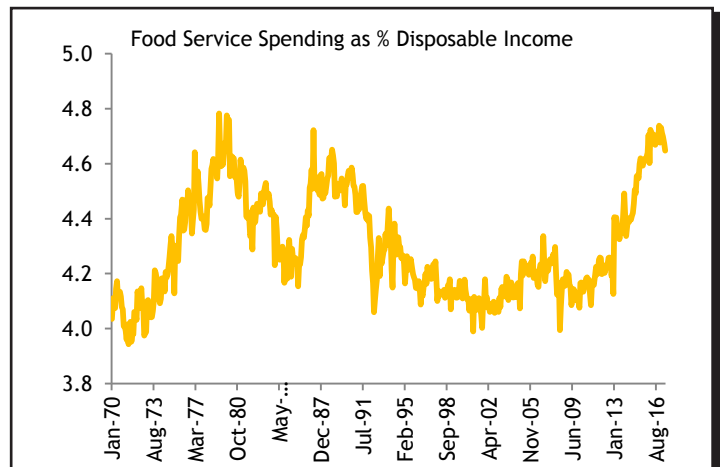
As well as households potentially feeling full from eating out, restaurant sales stateside have also suffered from becoming more expensive relative to eating at home. While food costs have, if anything, come down slightly in recent years, helped by a more competitive grocery sector, soft global agricultural prices and until recently a strong US\$, eating out has become more expensive. The end result was a 10% or so relative cost swing in favour of home cooking (Chart 3, left).

Chart 1
Spending on Eating Out Slows in US, Still Strong in Canada



Source: BEA, Statistics Canada, CIBC

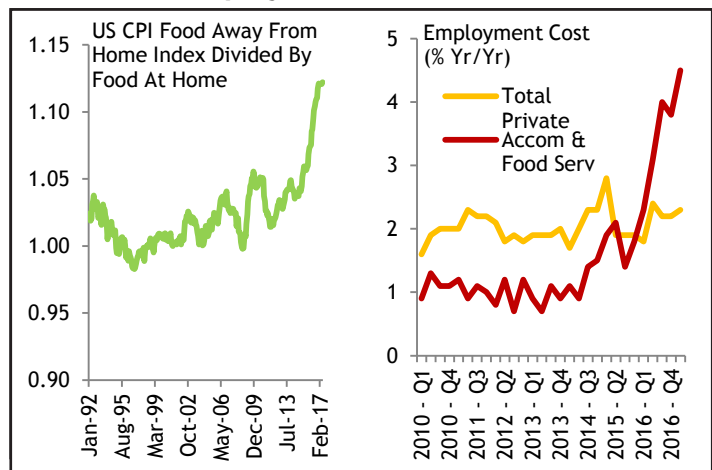
Chart 2
Food Spending as Proportion of Income Close to Previous Peaks



Source: BEA, CIBC

Chart 3

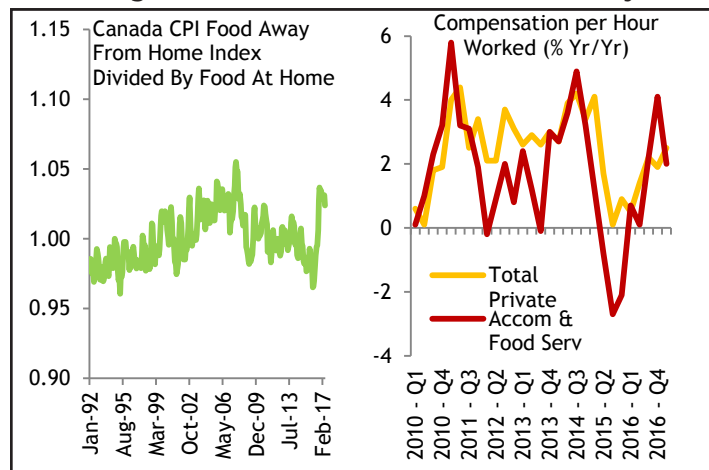
Eating Out Gets More Expensive Relative to Home (L) As Employment Costs Soar (R)



Source: BEA, CIBC

Chart 4

Eating Out Hasn't Become as Expensive in Cda (L), With Wage Trends Similar to Rest of Economy (R)



Source: Statistics Canada, CIBC

And that change isn't a reflection of eating establishments choosing higher profits over greater traffic. It's because, for many, their other major cost—labour—has become more expensive thanks to minimum wage increases in a number of states (Chart 3, right). While those would also impact grocery stores as well, the more labour intensive work of restaurants means eateries are at greater risk. And it's not as if the greater income for those workers earning minimum wages will help fuel demand much, as the lowest 40% of households by income tend to spend twice as much on food at home as they do on eating out.

Given that the causes of slowing US restaurant sales appear to be industry specific, that's good news for Canadian exporters reliant on a healthy American consumer. However, the issue of higher costs could be something Canadian companies in the same space will also be having to deal with in the years ahead.

So far, the cost of eating out in Canada hasn't risen anywhere near as much relative to eating at home, despite the period of deflation in grocery prices that's just starting to abate (Chart 4, left). That's because wages in the area haven't seen any more upward pressure than the average (Chart 4, right).

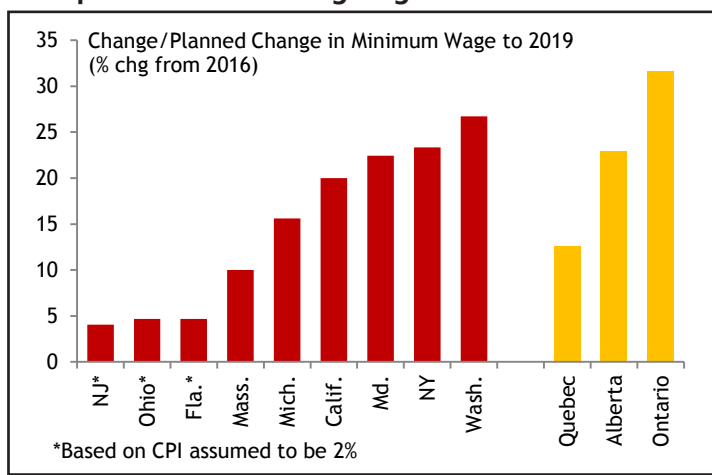
However, things may be about to change with minimum wage increases also coming through in Canada. Ontario and Alberta are set to raise the minimum wage to \$15 in fairly short order, while BC could also follow suit depending on how the political situation there evolves

following the indecisive election. Indeed, relative to large US states that have raised or are about to raise their minimum wages, the hikes planned in the biggest provinces are at the upper end of the scale (Chart 5).

So, while investors and exporters betting on a stronger US consumer shouldn't be too worried about the slowing in eating out stateside, those looking at restaurant chains here in Canada should be aware that similar cost pressures will face this sector in the years ahead.

Chart 5

Minimum Wage Increases Coming in Canada at Top End of Those Ongoing in the US



*Based on CPI assumed to be 2%

Source: NCSL, Provincial Governments, CIBC

ECONOMIC UPDATE

CANADA	17Q1A	17Q2F	17Q3F	17Q4F	18Q1F	18Q2F	18Q3F	18Q4F	2016A	2017F	2018F
Real GDP Growth (AR)	3.7	3.0	1.9	1.7	2.0	2.2	1.8	2.0	1.5	2.8	2.0
Real Final Domestic Demand (AR)	4.7	3.1	1.9	1.1	1.6	1.5	1.2	1.4	1.0	2.4	1.6
Household Consumption (AR)	4.3	2.6	1.8	1.3	1.6	1.7	1.3	1.3	2.4	2.9	1.6
All Items CPI Inflation (Y/Y)	1.9	1.3	1.2	1.8	1.7	2.0	2.5	2.4	1.4	1.6	2.2
Unemployment Rate (%)	6.7	6.5	6.4	6.4	6.4	6.3	6.3	6.2	7.0	6.5	6.3
U.S.	17Q1A	17Q2F	17Q3F	17Q4F	18Q1F	18Q2F	18Q3F	18Q4F	2016A	2017F	2018F
Real GDP Growth (AR)	1.4	2.8	2.6	2.3	1.5	2.2	2.0	2.2	1.6	2.3	2.1
Real Final Sales (AR)	2.6	2.1	2.3	2.4	1.8	2.1	2.0	2.1	2.0	2.2	2.1
All Items CPI Inflation (Y/Y)	2.5	1.9	2.1	2.4	2.3	2.6	2.7	2.7	1.3	2.2	2.6
Core CPI Inflation (Y/Y)	2.2	1.8	1.8	1.9	1.9	2.3	2.4	2.4	2.2	1.9	2.3
Unemployment Rate (%)	4.7	4.4	4.3	4.3	4.2	4.2	4.3	4.2	4.9	4.4	4.2

CANADA

Another upgrade was necessary to our Canadian outlook, with the second quarter almost matching the blistering Q1 pace. Further out, great minds must think alike as our forecast looks in line with the Bank of Canada's. This year is slated to see a 2.8% pace, and a slightly stronger end to the year has nudged the 2018 forecast higher as well. Still, the limits imposed by potential growth has GDP expanding at a slower pace next year, with 2% our current forecast. CPI has been downgraded in the near-term (see pages 3-5), while the unemployment should track a tick lower in 2017 and 2018.

UNITED STATES

First-quarter growth in the US had originally looked anemic, but some of that weakness has now been revised away. Still, a further rebound in both personal spending and inventory accumulation data should see growth accelerate to 2.8% in Q2, ultimately leaving the first half of 2017 tracking a trend-like 2%. The back half of the year should also see the economy expand faster than potential, chewing through whatever slack remains while beginning to push inflation higher.

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